



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

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STATEMENT OF LEGAL AND FACTUAL BASIS

Permittee Name: United States Navy – Naval Medical Center, Portsmouth
Facility Name: Naval Medical Center, Portsmouth
Facility Location: 620 John Paul Jones Circle
Portsmouth, Virginia 23708

Registration Number: 60293
Permit Number: TRO-60293

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, United States Navy – Naval Medical Center, Portsmouth has applied for a Title V Operating Permit for its medical facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Permit Writer: _____ Date: _____
Kelly R. Giles
(757) 518-2155

Air Permit Manager: _____ Date: _____
Troy D. Breathwaite

Regional Director: _____ Date: _____
Maria R. Nold

Attachments: 04/13/12 NSR Permit
40 CFR 60, Subpart Dc
40 CFR 63, Subpart JJJJJ
EPA letter dated 03/13/12 – MACT JJJJJ No Action Assurance
EPA letter dated 07/18/12 – MACT JJJJJ No Action Assurance

I. FACILITY INFORMATION

Permittee

United States Navy
Commander
Navy Region, Mid-Atlantic
1510 Gilbert Street
Norfolk, Virginia 23511-2737

Facility

Naval Medical Center, Portsmouth
620 John Paul Jones Circle
Portsmouth, Virginia 23708-2197

County-Plant Identification Number: 51-740-00007

A. SOURCE DESCRIPTION

NAICS 622 – Hospitals

SIC 80 – Health Services

Industries in the Hospitals subsector provide medical, diagnostic, and treatment services that include physician, nursing, and other health services to inpatients and the specialized accommodation services required by inpatients. Hospitals may also provide outpatient services as a secondary activity. Establishments in the Hospitals subsector provide inpatient health services, many of which can only be provided using the specialized facilities and equipment that form a significant and integral part of the production process.

NAICS 6221 – General Medical and Surgical Hospitals

NAICS 62211- General Medical and Surgical Hospitals

SIC 806 – Hospitals

SIC 8062 - General Medical and Surgical Hospitals

This industry comprises establishments known and licensed as general medical and surgical hospitals primarily engaged in providing diagnostic and medical treatment (both surgical and nonsurgical) to inpatients with any of a wide variety of medical conditions. These establishments maintain inpatient beds and provide patients with food services that meet their nutritional requirements. These hospitals have an organized staff of physicians and other medical staff to provide patient care services. These establishments usually provide other services, such as outpatient services, anatomical pathology services, diagnostic X-ray services, clinical laboratory services, operating room services for a variety of procedures, and pharmacy services.

The facility is a Title V major source of NO_x and SO_x and an area source of HAP. This source is located in an attainment area for all pollutants and is currently permitted under a Minor NSR Permit last amended on April 13, 2012.

North Carolina is an affected state.

II. COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was conducted on November 14, 2011. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

III. EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emissions Unit ID	Stack ID	Emissions Unit Description	Size/Rated Heat Input Capacity, mmBTU/hr	Max Rated Output (Note 1)	Applicable NSR Permit
NMC-20-Boil-105	STBOIL-100	Nebraska Boiler NS-C-39S, 6/1/87	30.1	30,000 lb	4/13/2012
NMC-20-Boil-106	STBOIL-100	Nebraska Boiler NS-C-39S, 3/15/86	36.0	30,000 lb	4/13/2012
NMC-20-Boil-107	STBOIL-100	Nebraska Boiler NS-C-39, 9/15/83	37.6	30,000 lb	4/13/2012
NMC-20-Boil-108	STBOIL-100	Nebraska Boiler NSB37, 1/15/82	24.0	20,000 lb	4/13/2012
NMC-20-Boil-109	STBOIL-100	Cleaver Brooks 200-CT-7, Nov 94	51.0	40,000 lb	4/13/2012
NMC-20-Boil-110	STBOIL-100	Cleaver Brooks 200-CT-7, Nov 94	51.0	40,000 lb	4/13/2012
NMC-20-ICGF-002	STICGF-002 Bldg 20	Cummins Engine KTTA50-G2, May 95	10.2	1,000 kW (72%) (1342 hp)	4/13/2012
NMC-20-ICGF-003	STICGF-003 Bldg 20	Cummins Engine KTTA50-G2, May 95	10.2	1,000 kW (72%) (1342 hp)	4/13/2012
NMC-20-ICGF-004	STICGF-004 Bldg 20	Cummins Engine KTTA50-G2, May 95	10.2	1,000 kW (72%) (1342 hp)	4/13/2012
NMC-20-ICGF-005	STICGF-005 Bldg 20	Cummins Engine KTTA50-G2, May 95	10.2	1,000 kW (72%) (1342 hp)	4/13/2012
NMC-20-ICGF-006	STICGF-006 Bldg 20	Cummins Engine KTTA50-G2, May 95	10.2	1,000 kW (72%) (1342 hp)	4/13/2012
NMC-20-ICGF-007	STICGF-007 Bldg 20	Cummins Engine KTTA50-G2, May 95	10.2	1,000 kW (72%) (1342 hp)	4/13/2012
NMC-3-ICGF-008	STICGF-008 Bldg 3	Caterpillar Engine 3408B, 1989	4.50	380 kW (510 hp)	4/13/2012
NMC-3-ICGF-009	STICGF-009 Bldg 3	Caterpillar Engine 3412, 1989	3.91	330 kW (443 hp)	4/13/2012
NMC-3-ICGF-010	STICGF-010 Bldg 3	Caterpillar Engine 3408B, 1989	4.50	380 kW (510 hp)	4/13/2012
NMC-275-ICGF-011	STICGF-011 Bldg 275	Cummins Engine NTA-855-G2, 1993	4.06	300 kW (402 hp)	4/13/2012

Emissions Unit ID	Stack ID	Emissions Unit Description	Size/Rated Heat Input Capacity, mmBTU/hr	Max Rated Output (Note 1)	Applicable NSR Permit
NMC-150-ICGF-012	STICGF-012 Bldg 150	Caterpillar Engine 3306TA, 1999	2.41	230 kW (308 hp)	4/13/2012
NMC-273-ICGF-013	STICGF-013 Bldg 273	Caterpillar Engine 3306B, 1991	2.44	180 kW (241 hp)	4/13/2012
NMC-273-ICGF-015	STICGF-015 Bldg 273	Caterpillar Engine 3208, 1986	2.17	160 kW (215 hp)	4/13/2012
NMC-250-ICGF-017	STICGF-017 Bldg 250	Caterpillar Engine 3406, Feb 95	3.73	300 kW (402 hp)	4/13/2012
NMC-274-ICGF-019	STICGF-019 Bldg 274	Cummins Engine KTA-19T2, 1993	4.74	400 kW (536 hp)	4/13/2012
WOOD-001	NA	Woodworking Shop	NA	NA	NA

Note 1: Output units are lb steam/hr for boilers and kW (% of prime power) electrical output for IC generator units.

IV. EMISSIONS INVENTORY

A copy of the 2011 annual emission update is attached. Emissions are summarized in the following tables.

2011 Criteria Pollutant Emission in Tons/Year					
Emission Unit	VOC	CO	SO₂	PM₁₀	NO_x
Boilers	0.627	9.571	0.084	0.987	12.28
Generators	0.365	2.016	0.005	0.391	8.467
Total	.992	11.588	0.089	1.379	20.746

V. EMISSION UNIT APPLICABLE REQUIREMENTS -Boilers

A. Limitations

The New Source Review permit issued May 9, 2002, and amended April 13, 2012, contains specific requirements that have been incorporated into the Title V operating permit. A copy of the NSR permit is attached to the Statement of Basis.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-80-110 Permit Content

The following Code of Federal Regulations has been determined to be applicable:

40 CFR Part 60 Subpart Dc – Small Industrial-Commercial-Institutional Steam Generating Units
40 CFR Part 63 Subpart JJJJJ – National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

B. Monitoring and Recordkeeping

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-80-110 Permit Content

The following Code of Federal Regulations has been determined to be applicable:

40 CFR Part 60 Subpart Dc – Small Industrial-Commercial-Institutional Steam Generating Units
40 CFR Part 63 Subpart JJJJJ – National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

The permit includes a requirement for monthly visual evaluations of each stack for compliance with the opacity limitation.

No periodic monitoring for the emissions limits for criteria pollutants is required in the permit. The following demonstration is provided to show that it is not likely that the Title V emission limits will be exceeded:

Example emissions unit size (Boiler 109) = 51 mmBtu/hr each (two Subpart Dc emissions units; the other four units are smaller heat input capacities)

Total heat input capacity for six units = 229.7 mmBtu/hr
Heating Value of Distillate Fuel = 140,000 Btu/gal
Sulfur Content of Fuel = 0.5%
Fuel Throughput = 5,430,000 gallons of distillate fuel combined
Hourly Throughput (example Boiler 109) = 51 mmBtu/hr / 140,000 Btu/gal = 364 gal/hr per boiler
Total Maximum Hourly Throughput for six boilers: 1,640 gal/hr

Emission Factors from AP42 (Fuel Oil Combustion, 9/98) for Distillate Oil and from compliance testing for CO and NO_x:

Pollutant	Boil-105,106,108	Boil-107	Boil-109,110	[lb/1000 gal]
SO ₂	142S	142S	142S	[AP42, 9/98]
NO _x	13	10 (7/97 tests)	14 (12/95 tests)	[AP42, 9/98:20]
CO	5.0 (AP42, 9/98)	2.0	2.0 (12/95 tests)	[1.2, B109; .2, B110]
PM*	3.3 (AP42, 5/10)	3.3	3.3	
PM-10*	2.3 (AP42, 5/10)	2.3	2.3	
VOC	0.2 (AP42, 9/98)	0.2	0.2	

* - PM and PM-10 updated from previous permit to include condensable portion.

SO₂ Emissions:

$((142 \times 0.5) / 1000) \text{ lb/gal} \times (364 \text{ gal/hr}) = 25.9 \text{ lb/hr SO}_2 \text{ per boiler}$
Title V permitted rate = **26.5 lb/hr SO₂ per boiler**
 $((142 \times 0.5) / 1000) \text{ lb/gal} \times (5,430,000 \text{ gal/yr}) / 2000 \text{ lb/tn} = 192.8 \text{ tn/yr SO}_2 \text{ for the plant}$
Title V permitted rate = **194.9 tn/yr SO₂ for the six-boiler plant**

NO_x Emissions (from each of Boilers 109, and 110, as worst case, hourly):

$((14 / 1000) \text{ lb/gal}) \times (364 \text{ gal/hr}) = 5.1 \text{ lb/hr NO}_x \text{ per boiler}$
Title V permitted rate = **7.4 lb/hr NO_x per boiler**
 $((14 / 1000) \text{ lb/gal}) \times (5,430,000 \text{ gal/yr}) / 2000 \text{ lb/tn} = 38.0 \text{ tn/yr NO}_x \text{ for the 6-boiler plant}$
Title V permitted rate = **54.3 tn/yr NO_x for the six-boiler plant**

CO Emissions (from each of Boilers 105, 106, and 108, as worst case, hourly):

$((5 / 1000) \text{ lb/gal}) \times (364 \text{ gal/hr}) = 1.8 \text{ lb/hr CO per boiler}$
Title V permitted rate = **1.8 lb/hr CO per boiler**
 $((5 / 1000) \text{ lb/gal}) \times (5,430,000 \text{ gal/yr}) / 2000 \text{ lb/tn} = 13.6 \text{ tn/yr CO for the 6-boiler plant}$
Title V permitted rate = **13.6 tn/yr CO for the six-boiler plant**

PM Emissions:

$((3.3 / 1000) \text{ lb/gal}) \times (364 \text{ gal/hr}) = 1.2 \text{ lb/hr PM per boiler}$

Title V permitted rate = **2.4 lb/hr PM per boiler**

$((3.3 / 1000) \text{ lb/gal}) \times (5,430,000 \text{ gal/yr}) / 2000 \text{ lb/tn} = 9.0 \text{ tn/yr PM for the six-boiler plant}$

Title V permitted rate = **9.0 tn/yr PM for the six-boiler plant**

PM-10 Emissions:

$((2.3 / 1000) \text{ lb/gal}) \times (364 \text{ gal/hr}) = 0.8 \text{ lb/hr PM-10 per boiler}$

Title V permitted rate = **1.2 lb/hr PM-10 per boiler**

$((2.3 / 1000) \text{ lb/gal}) \times (5,430,000 \text{ gal/yr}) / 2000 \text{ lb/tn} = 6.2 \text{ tn/yr PM-10 for the 6-boiler plant}$

Title V permitted rate = **6.2 tn/yr PM-10 for the six-boiler plant**

VOC Emissions:

$((0.2 / 1000) \text{ lb/gal}) \times (364 \text{ gal/hr}) = 0.07 \text{ lb/hr VOC per boiler}$

Title V permitted rate = **0.1 lb/hr VOC per boiler**

$((0.2 / 1000) \text{ lb/gal}) \times (5,430,000 \text{ gal/yr}) / 2000 \text{ lb/tn} = 0.5 \text{ tn/yr VOC for the 6-boiler plant}$

Title V permitted rate = **1.0 tn/yr VOC for the six-boiler plant**

Based on the demonstration above, it is unlikely that hourly emissions limits will be exceeded for the boilers, so no additional periodic monitoring other than opacity is specified.

The permit includes requirements for maintaining records of emission data and operating parameters necessary to demonstrate compliance with the permit. These records include the type and amount of fuel combusted in the boilers, records of visual evaluations, visible emissions evaluations and any corrective action taken in regard to visible emissions, and fuel certifications. Recordkeeping as required by NSPS Subpart Dc has been incorporated into the permit as well.

See also NSR permit issued on 04/13/2012.

C. Testing

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

See also NSR permit issued on 04/13/2012.

D. Reporting

Reporting as required by NSPS Dc has been incorporated into the permit.

The following Virginia Administrative Codes that have specific reporting requirements have been determined to be applicable:

9 VAC 5-80-110 Permit Content

The following Code of Federal Regulations has been determined to be applicable:

40 CFR Part 60 Subpart Dc – Small Industrial-Commercial-Institutional Steam Generating Units

See also NSR permit issued on 04/13/2012.

E. MACT JJJJJJ – Area Source Boilers

Facilities subject to MACT JJJJJJ include owners/operators of existing, institutional boilers located at or part of an area source of HAPs.

Per the definition found at § 63.11237, Institutional boiler means a boiler used in institutional establishments such as medical centers, research centers, and institutions of higher education to provide electricity, steam, and/or hot water. This facility is a hospital/medical center and meets the definition of Institutional .

Per § 63.11194 (b) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before June 4, 2010. The boilers located at this facility are determined to be existing units as the last installation date was November 1994.

All the units qualify as large (>10 MMBtu/hr) units.

Condition III.E.1.b and III.E.1.c – does not state the date for conducting the initial performance tune up and notification and energy assessment. The date listed in the regulation for the tune up (March 21, 2012) has already passed and according to EPA letters dated 3/13/12 and 7/18/12 (attached) state "...the EPA issued a no action assurance to all owners and/or operators of existing industrial boilers and commercial and institutional boilers at area sources of hazardous air pollutant emissions stating that EPA would not enforce the requirement to conduct an initial tune-up by March 21, 2012."

VI. EMISSION UNIT APPLICABLE REQUIREMENTS - Generators

A. Limitations

The New Source Review permit issued May 9, 2002, and amended April 13, 2012, contains specific requirements that have been incorporated into the Title V operating permit. A copy of the NSR permit is attached to the Statement of Basis.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-80-110 Permit Content

While MACT ZZZZ is listed in the Inapplicable Requirements section, there are restrictions on hours of operations for various situations with the ELRP designated units that the permittee must follow in order to not be subject to the entire non-emergency requirements. These limitations are included in this TV permit.

B. Monitoring

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-80-110 Permit Content

The permit includes a requirement for monthly visual evaluations of each stack for compliance with the opacity limitation for the larger ELRP designated units as well as an annual Method 9. Annual Method 9 is also required for the smaller emergency-only engines that operate over 100 hours in the previous calendar year.

No periodic monitoring for the emissions limits for criteria pollutants is required in the permit. The following demonstration is provided to show that there is not a great likelihood that the Title V emission limits will be exceeded:

AP42 Emission Factors from Section 3.4, Large Stationary Diesel and All Stationary Dual-fuel Engines:

PM = 0.1 lb/mmBtu

SO₂ = 1.01S lb/mmBtu, where S = weight percent of sulfur in the fuel

NO₂ - 1.9 lb/mmBtu

CO - 0.85 lb/mmBtu

VOC - 0.0819 lb non-methane VOC/mmBtu

Weight percent of sulfur = 0.5

Emission Units ICGF-002 through 007 = 10.2 mmBtu/hr, each

Particulate Matter Emissions from ICGF-002 through 007, each:

PM = 0.1 lb/mmBtu x 10.2 mmBtu/hr = **1.0 lbs/hr, each**

Title V permitted rate = **3.6 lbs/hr PM, each**

Sulfur Dioxide Emissions from ICGF-002 through 007, each:

SO₂ = [(1.01)(0.5) lb/mmBtu] x 10.2 mmBtu/hr = **5.1 lbs/hr, each**

Title V permitted rate = **5.4 lbs/hr, each**

Nitrogen Dioxide Emissions from ICGF-002 through 007, each:

NO₂ = 1.9 lb/mmBtu x 10.2 mmBtu/hr = **19.4 lbs/hr each**

Title V permitted rate = **33.2 lbs/hr, each**

Carbon Monoxide Emissions from ICGF-002 through 007, each:

CO - 0.85 lb/mmBtu x 10.2 mmBtu/hr = **8.7 lbs/hr, each**

Title V permitted rate = **6.4 lbs/hr, each**

VOC Emissions from ICGF-002 through 007, each:

VOC-0.0819 lb VOC/mmBtu x 10.2 mmBtu/hr=**0.84 lb VOC/hr, each**

Title V permitted rate = **0.9 lbs/hr, each**

Based on the demonstration above, there is not a great likelihood that hourly emissions limits will be exceeded for the generators, so no additional periodic monitoring other than opacity is specified.

See also NSR permit issued on 04/13/2012.

C. Recordkeeping

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-80-110

Permit Content

The permit includes requirements for maintaining records of emission data and operating parameters necessary to demonstrate compliance with the permit. These records include the fuel type and throughput for the generators, records of visual evaluations, visible emissions evaluations and any corrective action taken in regard to visible emissions, records of maximum electric load production levels, fuel supplier certifications, and written operating

procedures.

The engine generator sets operate significantly less than that permitted to allow for unanticipated demands. Engine generator sets ICGF-002 through 007 operate between 100 and 200 hours per year. Generator sets ICGF-008 through ICGF-019 have operated 10 to 20 hours per year. The facility fuel limit of 784,000 gallons of diesel fuel oil per year would be sufficient for 1577 hr/yr for each of engines ICGF-002 through 007, and 500 hr/yr for each of the engines ICGF-008 to 013, 015, 017, and 019. Recordkeeping is specified as the primary method of periodic monitoring.

See also NSR permit issued on 04/13/2012.

D. Testing

The permit does not require source tests. The Department and EPA have the authority to require testing not included in the permit if necessary to determine compliance with an emission limitation or standard.

VII. EMISSION UNIT APPLICABLE REQUIREMENTS – Woodworking Equipment

A. Limitations

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-80-110	Permit Content
9 VAC 5, Chapter 40, Part II, Article 17	Emission Standards for Woodworking Operations
9 VAC 5, Chapter 50, Part II, Article 1	Visible Emissions and Fugitive Dust/Emissions

B. Monitoring and Recordkeeping

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-80-110	Permit Content
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Woodworking Shop emissions: Controlled emissions are not visible, and by engineering judgment, are assumed to be less than 5 grains/dscf. Exhaust flow was tested at a maximum rate of 30.49 cuft/min.

Maximum potential hourly emissions are therefore:

$$30.49 \text{ cuft/min} \times 0.05 \text{ gr/dscf} \times \text{lb}/7000 \text{ grains} \times 60 \text{ min/hr} = 0.0131 \text{ lb PM/hr}$$

Maximum potential annual emissions are:

$$0.0131 \text{ lb PM/hr} \times 8760 \text{ hr/yr} \times \text{ton}/2000 \text{ lb} = 0.057 \text{ tons PM/yr}$$

Since the potential for emissions is small, no limits are assigned. Periodic monitoring for this emissions unit is proposed as visual observations of emissions from emissions units and the control device, and corresponding recordkeeping consisting of log entries to ensure no visible emissions are present, and to correct and record occurrences of malfunctions.

C. Testing

The permit does not require source tests. The Department and EPA have the authority to require testing not included in the permit if necessary to determine compliance with an emission limitation or standard.

VIII. STREAMLINED REQUIREMENTS

All degreasers have been removed from the facility therefore all associated conditions have been removed from the permit.

IX. INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emissions Unit No.	Emissions Unit Description	Citation Code*	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720C)
GSTA-001	Vehicle Maintenance Facility Gasoline/Diesel Pumping Tank	2	2,2,4-Trimethylpentane, Benzene, Ethylbenzene, Hexane, Toluene, VOC, Xylenes (mixed isomers)	NA
LABS-ALL	Lab Hoods in the Charette Health Care Center	2	Formaldehyde, Methanol, VOC, Xylenes(mixed isomers)	NA
LABS-012	Still Room, Sterilization Material Recycling Process in the Central Energy Plant (Bldg 20)	2	Formaldehyde, VOC, Xylenes (mixed isomers)	NA
OCOM-ALL	Space Heaters (<0.3 mmBTU/hr)	1	Carbon monoxide, PM, PM ₁₀ , NO _x , SO _x , VOC	NA
TNKA-002	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-003	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-008	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-009	Distillate Fuel Oil No. 2 Storage Tank (55,000 gallons)	2	VOC	NA
TNKA-010	Distillate Fuel Oil No. 2 Storage Tank (55,000 gallons)	2	VOC	NA
TNKA-011	Distillate Fuel Oil No. 2 Storage	2	VOC	NA
TNKA-018	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-019	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-020	PWC 2,000 gallon Gasoline Storage Tank	2	VOC	NA

Emissions Unit No.	Emissions Unit Description	Citation Code*	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720C)
TNKA-022	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-024	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-025	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-026	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-027	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-028	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-029	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-030	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-031	MWR 250 gallon Gasoline Tank	2	VOC	NA
TNKA-032	Horizontal Fixed Roof, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-004	Horizontal Underground, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-006	Horizontal Underground, Distillate Fuel Oil No. 2 Storage Tank	2	VOC	NA
TNKA-013	Horizontal Underground, Lubrication Oil Storage Tank	2	VOC	NA
TNKA-014	Horizontal Underground, Waste Oil Storage Tank	2	VOC	NA
WSTL-001	Tank Secondary Containment Oil/Water Separator for TNKA-010	2	VOC	NA
WSTL-002	Tank Secondary Containment Oil/Water Separator for TNKA-011	2	VOC	NA
WSTL-002	Tank Secondary Containment Oil/Water Separator for TNKA-011	2	VOC	NA

*The citation criteria for insignificant activities are as follows:

- 1- (9 VAC 5-80-720 A) - Listed Insignificant Activity, Not Included in Permit Application
- 2 – (9 VAC 5-80-720 B) - Insignificant due to emission levels
- 3 – (9 VAC 5-80-720 C) - Insignificant due to size or production rate

These emissions units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emissions units in accordance with 9 VAC 5-80-110.

Freon Recovery Units have been removed from the Insignificant List as these units are covered under the General Condition VIII.X (Stratospheric Ozone Protection).

40 CFR Part 98 - Mandatory Greenhouse Gas Reporting:

The provisions of 40 CFR Part 98 require owners and operators of general stationary fuel combustion sources that emit 25,000 metric tons CO₂e or more per year in combined emissions from such units, to report greenhouse gas (GHG) emissions, annually. The definition of "applicable requirement" in 40 CFR 70.2 and 71.2 does not include requirements such as those included in Part 98, promulgated under Clean Air Act (CAA) section 114(a)(1) and 208. Therefore, the requirements of 40 CFR Part 98 are not applicable under the Title V permitting program.

As a result of several EPA actions regarding GHG under the CAA, emissions of GHG must be addressed for a Title V permit renewed after January 1, 2011. The current state minor NSR permit for the “facility name” contains no GHG-specific applicable requirements and there have been no modifications at the facility requiring a PSD permit. Therefore, there are no applicable requirements for the facility specific to GHG.

X. INAPPLICABLE REQUIREMENTS

It has been determined that none of the generators are subject to the NSPS IIII or MACT ZZZZ regulations.

All units pre-date the applicability for NSPS IIII (most recent installation date at facility is May 1995, NSPS applicability date for owners/operators is July 11, 2005).

Email received from facility (dated 8/14/2012) indicated that one of the large generators had been rebuilt recently. Discussed the definition of “reconstruction” as it pertains to NSPS IIII with the facility. It was determined that the work performed on the generator was 67% of what a brand new unit would cost. Since the cost is below 75%, NSPS IIII is not triggered. The generator maintains the same max rated capacity and all previous limits and conditions (fuel throughput, VE limit, etc.) remain in effect.

MACT ZZZZ exempts existing institutional emergency generators at area sources (see 40 CFR 63.6590 b.3.viii). These units meet the definition for “existing” at an area source as “...commenced construction...before June 12, 2006” as they were installed in 1995 or earlier. The units also meet the definition of “institutional” as “...an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations and fire stations.”

Additional Note Regarding MACT ZZZZ Applicability:

MACT ZZZZ defines emergency generators as “any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance...Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under §63.6640(f). All emergency stationary RICE must comply with the requirements specified in §63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in §63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.”

§63.6640(f) states “...an existing emergency stationary RICE located at an area source of HAP emissions, must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.”

§63.6640(f)(1)(i) through (iii) can be summarized as follows:

- (i) Emergency situations carry no time limit for operating the emergency generators.
- (ii) Operation of the emergency generators for maintenance and readiness testing is limited to 100 hours per year.
- (iii) Operation of the emergency generators in non-emergency situations is limited to 50 hours per year, which count toward the 100 hours per year in section (ii). The 50 hours cannot be used for peak shaving, supply

to the grid or other financial arrangement EXCEPT for a maximum of 15 hours per year as part of a demand response program (i.e. ELRP). The 15 hours for ELRP count toward the 50 hours of non-emergency operation.

In short, operation of the emergency generators outside of the specifications and time limits above would render the unit(s) as non-emergency units under MACT ZZZZ and would need to meet all requirements for non-emergency engines as applicable.

The facility has been notified of these limitations (by email dated 4/5/12).

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 4 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

XI. GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

1. Comments on General Conditions

a. Condition B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the "Department of Environmental Quality Agency Policy Statement No. 2-09".

b. Condition F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-80-250 of the Title V regulations also requires malfunction reporting; however, reporting is required within two days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. Section 9 VAC 5-80-250 is from the Title V regulations. Title V facilities are subject to both sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within four daytime business hours of discovery of the malfunction.

c. Condition J. Permit Modification

This general condition cites the sections that follow:

9 VAC 5-80-50. Applicability, Federal Operating Permit For Stationary Sources

9 VAC 5-80-190. Changes to Permits.

9 VAC 5-80-260. Enforcement.

9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources

9 VAC 5-80-1790. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas

9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

d. Condition U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in sections 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

9 VAC 5-80-110. Permit Content

e. Condition Y. Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follow:

40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.

40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.

40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

This general condition cites the regulatory sections that follow:

9 VAC 5-60-70. Designated Emissions Standards

9 VAC 5-80-110. Permit Content

XII. STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

9 VAC 5-40-140	Existing Source Standard for Odor
9 VAC 5-40-180	Existing Source Standard for Toxic Pollutants
9 VAC 5-50-140	New and Modified Source Standard for Odorous Emissions
9 VAC 5-50-180	New and Modified Source Standard for Toxic Pollutants

XIII. CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

XIV. PUBLIC PARTICIPATION

The proposed permit will be place on public notice in the [newspaper] from [date] to [date] .